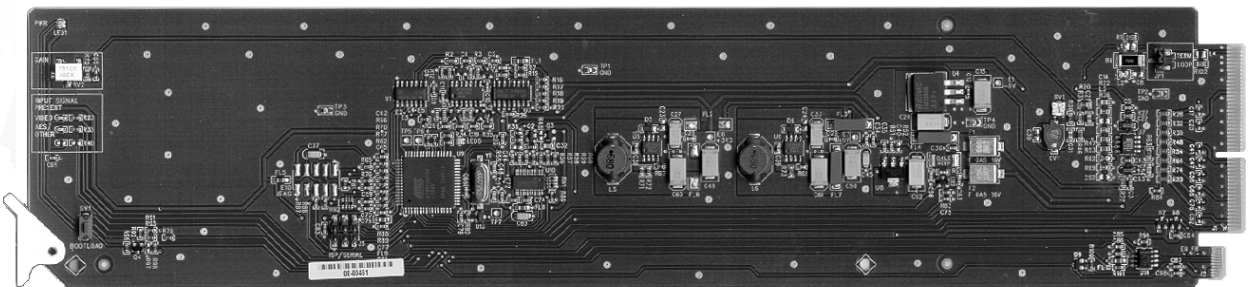




UDA-8705A

Analog Utility Distribution Amplifier

User Manual



Part Number: UDA-8705A-OM

Version: 1.1

UDA-8705A • Analog Utility Distribution Amplifier User Manual

- Sierra Video Part Number: **UDA-8705A-OM**
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Important Regulatory and Safety Notices

Before using this product and any associated equipment, refer to the “Important Safety Instructions” listed below so as to avoid personnel injury and to prevent product damage.

Products may require specific equipment, and /or installation procedures be carried out to satisfy certain regulatory compliance requirements. Notices have been included in this publication to call attention to these Specific requirements.

Symbol Meanings



This symbol on the equipment refers you to important operating and maintenance (servicing) instructions within the Product Manual Documentation. Failure to heed this information may present a major risk of damage or injury to persons or equipment.



Warning

The symbol with the word “**Warning**” within the equipment manual indicates a potentially hazardous situation, which if not avoided, could result in death or serious injury.



Caution

The symbol with the word “**Caution**” within the equipment manual indicates a potentially hazardous situation, which if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.



Notice

The symbol with the word “**Notice**” within the equipment manual indicates a situation, which if not avoided, may result in major or minor equipment damage or a situation which could place the equipment in a non-compliant operating state.



ESD

Susceptibility

This symbol is used to alert the user that an electrical or electronic device or assembly is susceptible to damage from an ESD event.

Important Safety Instructions



Caution

This product is intended to be a component product of the openGear 8300 series frame. Refer to the openGear 8300 series frame User Manual for important safety instructions regarding the proper installation and safe operation of the frame as well as it's component products.



Warning

Certain parts of this equipment namely the power supply area still present a safety hazard, with the power switch in the OFF position. To avoid electrical shock, disconnect all A/C power cords from the chassis' rear appliance connectors before servicing this area.



Warning

Service barriers within this product are intended to protect the operator and service personnel from hazardous voltages. For continued safety, replace all barriers after any servicing.

This product contains safety critical parts, which if incorrectly replaced may present a risk of fire or electrical shock. Components contained within the product's power supplies and power supply area, are not intended to be customer serviced and should be returned to the factory for repair.

To reduce the risk of fire, replacement fuses must be the same type and rating.

Only use attachments/accessories specified by the manufacturer.

EMC Notices

US FCC Part 15

This equipment has been tested and found to comply with the limits for a class A Digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case users will be required to correct the interference at their own expense.



Notice

Changes or modifications to this equipment not expressly approved by Sierra Video, could void the user's authority to operate this equipment.

CANADA

This Class "A" digital apparatus complies with Canadian ICES-003.

Cet appareil numérique de classe "A" est conforme à la norme NMB-003 du Canada.

EUROPE

This equipment is in compliance with the essential requirements and other relevant provisions of **CE Directive 93/68/EEC**.

INTERNATIONAL

This equipment has been tested to **CISPR 22:1997** along with amendments **A1:2000** and **A2:2002** and found to comply with the limits for a Class A Digital device.



Notice

This is a Class A product. In domestic environments this product may cause radio interference in which case the user may have to take adequate measures.

Maintenance/User Serviceable Parts

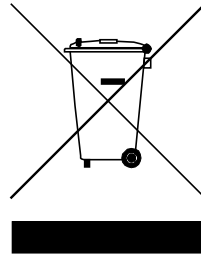
Routine maintenance to this openGear product is not required. This product contains no user serviceable parts. If the module does not appear to be working properly, please contact Technical Support using the numbers listed under the "Contact Us" section on the last page of this manual. All openGear products are covered by a generous 5-year warranty and will be repaired without charge for materials or labor within this period. Refer to the "Warranty and Repair Policy" section in this manual for details.

Environmental Information

The equipment that you purchased required the extraction and use of natural resources for its production. It may contain hazardous substances that could impact health and the environment.

To avoid the potential release of those substances into the environment and to diminish the need for the extraction of natural resources, Sierra Video encourages you to use the appropriate take-back systems. These systems will reuse or recycle most of the materials from your end-of-life equipment in an environmentally friendly and health conscious manner.

The crossed-out wheeled bin symbol invites you to use these systems.



If you need more information on the collection, reuse, and recycling systems, please contact your local or regional waste administration.

You can also contact Sierra Video for more information on the environmental performances of our products.

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Introduction

In This Chapter

This chapter contains the following sections:

- A Word of Thanks
- Overview
- Functional Block Diagrams
- Features
- Documentation Terms

A Word of Thanks

Congratulations on choosing the openGear **UDA-8705A Analog Utility Distribution Amplifier**. The UDA-8705A is part of a full line of Digital Products within the openGear Terminal Equipment family of products, backed by Sierra Video's experience in engineering and design expertise.

You will be pleased at how easily your new UDA-8705A fits into your overall working environment. Equally pleasing is the product quality, reliability and functionality. Thank you for joining the group of worldwide satisfied Sierra Video customers!

Should you have a question pertaining to the installation or operation of your UDA-8705A, please contact us at the numbers listed on the back cover of this manual. Our technical support staff is always available for consultation, training, or service.

Overview

The UDA-8705A is an analog general-purpose distribution amplifier. It is very useful in digital systems when there is a requirement for the distribution of a few analog signals, such as a color black reference.

The UDA-8705A is a general-purpose amplifier for use in the distribution of analog SD-video, Tri-level sync or AES3id audio. It is intended for use in situations where cable equalization and differential input are not needed, and clamping is not required. Gain is adjustable over a wide range of $\pm 3\text{dB}$.

This amplifier is DC-coupled and will faithfully provide all aspects of a video input signal to eight identical output copies with very low distortion. The use of new generation integrated circuits and innovative engineering has resulted in excellent performance combined with economy.

The UDA-8705A is designed for use in the openGear DFR-8300 series frames.

Functional Block Diagrams

This section includes functional block diagrams to illustrate the UDA-8705A functions including the looping feature.

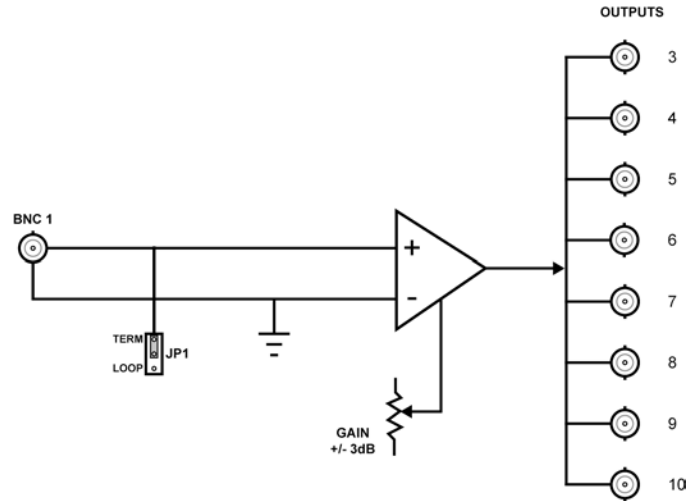


Figure 1. Simplified Block Diagram of UDA-8705A Functions

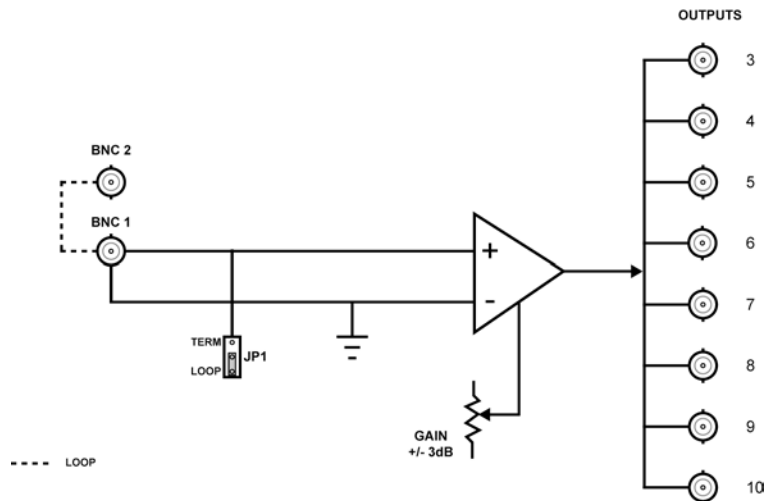


Figure 2. Simplified Block Diagram of UDA-8705A with Looping Function

Features

The following features make the UDA-8705A the best solution for general analog distribution:

- 8 analog video outputs
- DC Coupled
- Wide adjustable gain range of $\pm 3\text{dB}$
- Low distortion
- Excellent isolation between outputs
- Power to each card is individually fused
- Fits DFR-8310 and DFR-8320 series frames
- Fully compliant with openGear specifications
- 5-year transferable warranty

Documentation Terms

The following terms are used throughout this guide:

- **“Frame”** refers to the DFR-8300 series frame that houses the UDA-8705A card, as well as any openGear frames.
- All references to the **DFR-8300 series frame** includes versions of the 10-slot (DFR-8310) and 20-slot (DFR-8320) frames and any available options.
- **“Operator”** and **“User”** both refer to the person who uses the UDA-8705A.
- **“Board”** and **“Card”** both refer to the UDA-8705A unit itself, including all components and switches.
- **“System”** and **“Video system”** both refer to the mix of interconnected production and terminal equipment in which the UDA-8705A operates.

Installation and Setup

In This Chapter

This chapter contains the following sections:

- Static Discharge
- Unpacking
- Rear Module Installation (Optional)
- Board Installation
- BNC Labels
- Cable Connections

Static Discharge

Whenever handling the UDA-8705A and other related equipment, please observe all static discharge precautions as described in the following note:



Static discharge can cause serious damage to sensitive semiconductor devices. Avoid handling circuit boards in high static environments such as carpeted areas, and when wearing synthetic fiber clothing. Always exercise proper grounding precautions when working on circuit boards and related equipment.

Unpacking

Unpack each UDA-8705A you received from the shipping container, and check the contents against the packing list to ensure that all items are included. If any items are missing or damaged, contact your openGear sales representative or Sierra Videodirectly.

Rear Module Installation (Optional)

The UDA-8705A is compatible with the DFR-8310 and DFR-8320 series frames. The procedure for installing the Rear Module in your openGear frame is the same regardless of the frame or module used. However, a different module is required depending on the openGear frame you are using.

Rear Modules for the UDA-8705A

The Rear Module for the UDA-8705A depends on the openGear frame you are installing the card into.

- **DFR-8310** series frames — When installing the UDA-8705A in the DFR-8310 series frames, the **R1-8705** or **R1L-8705** Rear Modules are required. The UDA-8705A is also compatible with the DFR-8310-BNC frame.
- **DFR-8320** series frames — When installing the UDA-8705A in the DFR-8320 series frames, the Split Rear Module (**R2S-8705**) or Full Rear Modules (**R2-8705** or **R2L-8705**) are required.

Installing the Rear Module

If you received a Rear Module with your UDA-8705A, you will need to install the module in your DFR-8300 series frame before you can install the UDA-8705A in the frame, or connect cables to the slot you have chosen for the UDA-8705A. Skip this section if you are installing the UDA-8705A in a DFR-8310-BNC frame, or the Rear Module is already installed.

Use the following procedure to install the Rear Module in a DFR-8300 series frame:

1. Refer to the DFR-8300 series frame User Manual, to ensure that the frame is properly installed according to instructions.
2. On the rear of the frame, locate the card frame slot.
3. Remove the Blank Plate from the rear of the slot you have chosen for the UDA-8705A installation. If there is no Blank Plate installed, proceed to the next step.
4. As shown in **Figure 3**, seat the bottom of the rear module in the seating slot at the base of the frame's back plane.

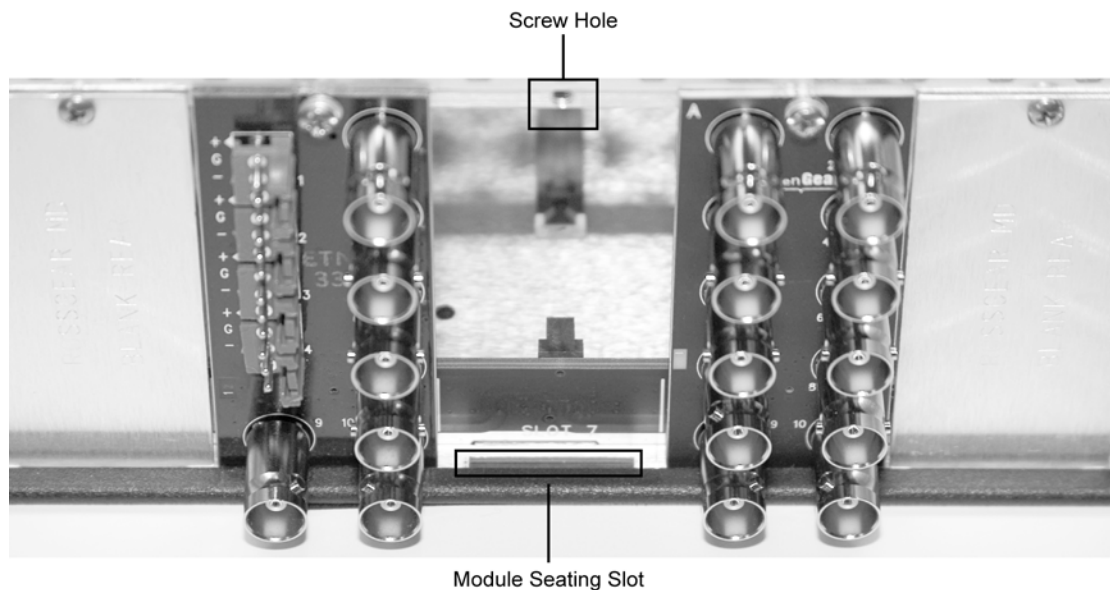


Figure 3. Rear Module Installation in a DFR-8310 Series Frame (UDA-8705A not shown)

5. Align the top hole of the rear module with the screw hole on the top edge of the frame back plane.
6. Using a Phillips driver and the supplied screw, fasten the rear module to the back plane. Do not over tighten.
7. Ensure proper frame cooling and ventilation by having all rear frame slots covered with Rear Module or blank metal plates. If you need blanks, refer to the chapter, “**Ordering Information**” in your DFR-8300 series frame User Manual, and contact your Sierra Video sales representative.

This completes the procedure for installing the Rear Module in a DFR-8300 series frame.

Board Installation

Use the following procedure to install the UDA-8705A in a DFR-8300 series frame:

1. Refer to the User Manual of your DFR-8300 series frame to ensure that the frame is properly installed.
2. After selecting the desired frame installation slot, hold the UDA-8705A card by the edges and carefully align the card edges with the slots in the frame.
3. Fully insert the card into the frame until the rear connection plugs are properly seated on the midplane and rear modules.

This completes the procedure for installing the UDA-8705A in an DFR-8300 series frame.

BNC Labels

Affix the supplied BNC label, as per the included instructions, to the BNC area on the rear of the rack frame.

Cable Connections

This section provides instructions for connecting cables to the installed Rear Modules on your DFR-8300 series frame backplane.

Connections for the DFR-8310 Series Frames

In the DFR-8310 series frames, the UDA-8705A occupies one slot and provides eight analog outputs. The input of the UDA-8705A can be terminated on the card depending on the rear module used. It is not necessary to terminate unused outputs.

In the DFR-8310 series frames, the UDA-8705A may be used with the following Rear Modules:

- **R1-8705** Full Rear Module — Each card provides eight outputs. The input must be terminated on the UDA-8705A using **JP1**. Refer to **Figure 4** for cable connections.
- **R1L-8705** Full Rear Module — Each card provides eight outputs and one looping output. If the input is looped on the rear module to another device, **JP1** must be set to **LOOP**. If looping is not used, either set **JP1** to **TERM**, or terminate the input externally at BNC 2. Refer to **Figure 5** for cable connections.

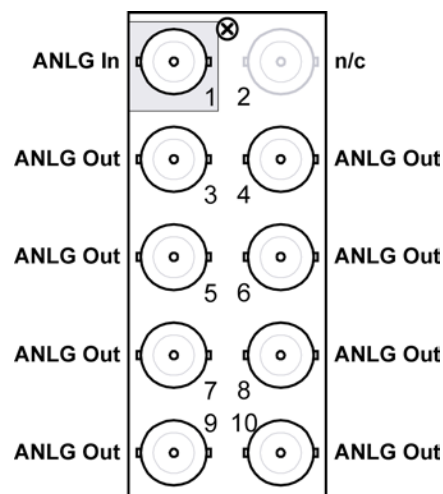


Figure 4. Cable Connections for the R1-8705 and R2-8705 Rear Modules

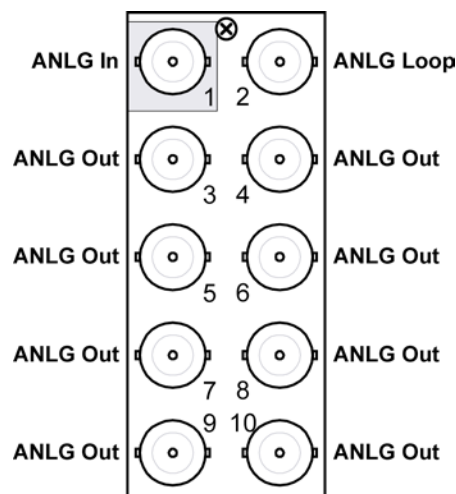


Figure 5. Cable Connections for the R1L-8705 and R2L-8705 Rear Modules

Connections for the DFR-8320 Series Frames

In the DFR-8320 series frames, the UDA-8705A may be used with the following Rear Modules:

- **R2-8705 Full Rear Module** — Each card occupies two slots and provides eight outputs. The input must be terminated on the card by setting **JP1** to **TERM**. Refer to **Figure 4** for cable connections.
- **R2L-8705 Full Rear Module with Looping** — Each card occupies two slots and provides eight outputs plus one looping output. If the input is looped on the rear module to another device, **JP1** must be set to **LOOP**. If looping is not used, either set **JP1** to **TERM**, or terminate the input externally at BNC2. Refer to **Figure 5**.
- **R2S-8705 Split Rear Module** — Each card occupies one slot and provides four outputs. Note that each Rear Module provides connections for two cards. Ensure the input is terminated on the card at **JP1**. Refer to **Figure 6** for cable connections.

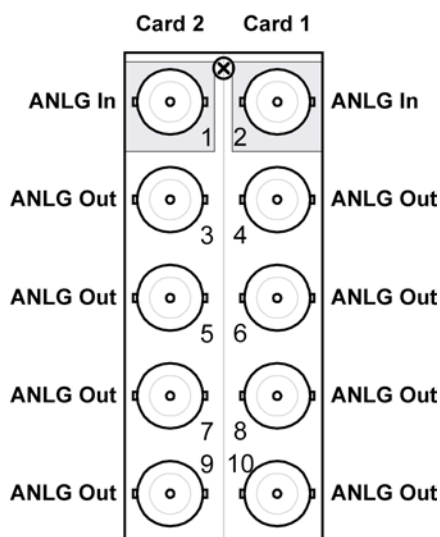


Figure 6. Cable Connections for the R2S-8705 Rear Module

User Controls

In This Chapter

This chapter includes the following sections:

- Jumper Locations
- LEDs
- Button Controls

Jumper Locations

The following sections describe the jumpers on the UDA-8705A.

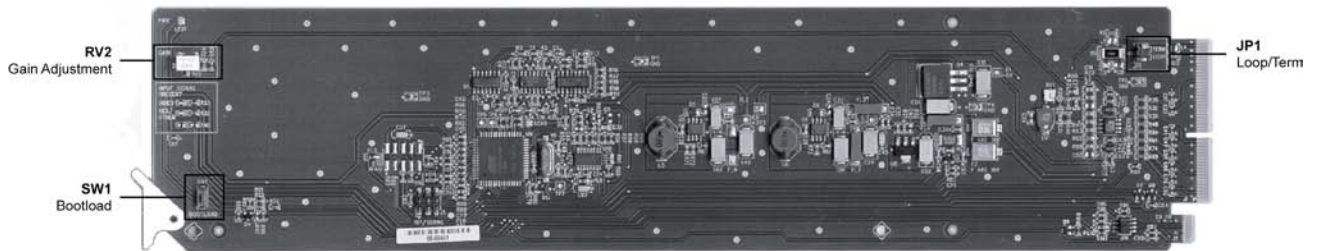


Figure 7. Jumper Locations

JP1 — Local Termination Jumper

The position of **JP2** selects an optional 75ohm termination on the input of the UDA-8705A card.

Select one of the following options:

- **TERM** — Install the jumper in this position to terminate the input signal on this card. This is the default setting.
- **LOOP** — Install the jumper in this position to leave the input unterminated. For example, configure this setting if you wish to loop the signal to another device.

RV2 — Gain Adjustment

The rotation of **RV2** adjusts the Gain level of the UDA-8705A and provides a gain range of +/- 3dB.

LEDs

The following sections describe the UDA-8705A LEDs. Refer to **Figure 8** for LED locations.

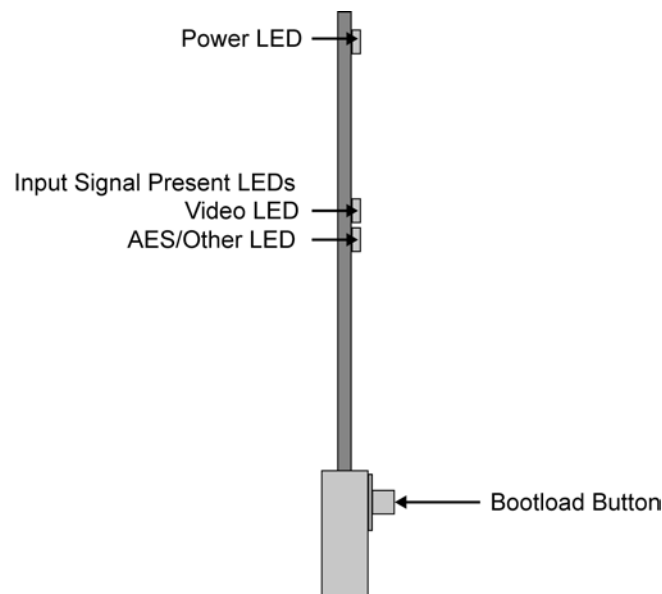


Figure 8. LED Locations

PWR (Power) LED

The **PWR** LED indicates the overall operating status of the UDA-8705A. This LED displays the following conditions:

- **Green** — The card is operating normally.
- **Flashing Green** — The card requires a software upgrade.
- **Red** — The card is not operational. Refer to the chapter, “**Service Information**” for details on this condition.

Input Signal Present LEDs

The **Input Signal Present** LEDs indicates the status of the analog input. This group of LEDs display the following conditions:

- **VIDEO** — If the **VIDEO** LED is lit, a valid analog video input signal is present on BNC 1.
- **AES/OTHER** — If the **AES/OTHER** LED is lit, a valid AES signal, or some other analog signal, is present on the input. The signal must be greater than 0.5Vp-p.

Note

Slowly changing, or small, amplitude signals will pass through the card, but the LEDs may be unlit. In this case, it is recommended to disable **the Notify on Input Loss** option via DashBoard. Note that the Input Signal Present threshold is set to assume a level of 1Vp-p.

Button Controls

The following sections describe the UDA-8705A buttons. Refer to **Figure 8** for button location.

SW1 — Bootload Button

This button is used for factory service in the unlikely event of a complete card failure. The Bootload process is further described in the chapter, “**Service Information**”, of this manual.

Control and Monitoring

In This Chapter

This section provides a detailed explanation on using remote control functions with your UDA-8705A.

The following topics are discussed:

- DashBoard Control System
- SNMP Monitoring and Control

DashBoard Control System

The DashBoard Control System™ enables you to monitor and control openGear frames and controller cards from a computer. DashBoard communicates with other cards in the DFR-8300 series frame through the MFC-8310-N Network controller card. This card is required in order to use DashBoard to configure the UDA-8705A.

The DashBoard software and manual can be downloaded from the Sierra Video website.

Using the Menus

You must first install the DashBoard Control System on your computer. Refer to the ***DashBoard User Manual*** for software installation procedures and using the DashBoard interface.

The following tables and sections describe the menus, items, and parameters available from the DashBoard Control System for the UDA-8705A.

Status Menus

The following table summarizes the **Status Menu** options available in DashBoard.

Table 1. Status Menus

Menu	Item	Parameters	Description
Product (Read-only)	Product	UDA-8705A	
	Supplier	Sierra Video	
	Board Rev	##	
	Serial Number	#####-###	
	Software Rev	#.##	
Hardware (Read-only)	Voltage (mV)	#	Supply Voltage
	Current (mA)	#	Current consumption of card
	Rear Module	#	Rear module for the card
	CPU Headroom	#	Processing power available
	RAM Available (bytes)	#	On-board processing memory available
	EE Bank	#	Storage count
Signal (Read-only)	Signal Status	Green – Video Present	Card is passing valid analog video
		Green – AES/Other	Card is passing AES audio or other analog signal
		Green – No input	No input present or the signal is below the detection threshold. The Notify on Loss of Input option is disabled.
		Red – No input	No input present or the signal is below 0.5V p-p. The Notify on Loss of Input option is enabled.
	Signal Format	480i 59.94 720p 59.94 1080i 59.94 1080p 29.97 576i 50 720p 50 1080i 50 1080p 25	Indicates the valid video format detected
		Unknown Video	Indicates a video signal is present but is an unknown format
		AES/Other	Indicates an audio or other analog signal is detected

Configuration Menus

The following table summarizes the **Configuration Menu** options available in DashBoard.

Table 2. Configuration Menus

Menu	Item	Parameters	Description
Setup	Notify on Loss of Input	Checkbox is selected*	DashBoard reports the loss of input
		Checkbox is unselected	DashBoard does not report the loss of input

* This is the default setting.

SNMP Monitoring and Control

The MFC-8310-N Network Controller card in the DFR-8300 series frame provides optional support for remote monitoring and control of your frame and UDA-8705A using Simple Network Management Protocol (SNMP), which is compatible with many third-party monitoring and control tools.

Refer to your UDA-8705A Management Information Base (MIB) file for a breakdown of SNMP controls on this card.

Refer to your DFR-8300 series frame user manual for additional information on SNMP Monitoring and Control.

Specifications

In This Chapter

This chapter includes the Technical Specifications for the UDA-8705A.

Table 3. UDA-8705A — Technical Specifications

Category	Parameter	Specification
Analog Input	Number of Inputs	1 (Looping*)
	Input Impedance	75 Ω terminating
	Return Loss	43dB to 5MHz, 35dB to 20MHz
	Nominal Signal Level	1Vpp (video, AES-3id)
Analog Outputs	Number Of Outputs	8
	Output Impedance	75 Ω
	Output Return Loss	45dB to 5MHz, 41dB to 20MHz
	Output Isolation	51dB to 5MHz, 40dB to 20MHz
	DC Offset	<30mV
	Frequency Response	± 0.08 dB to 10MHz, ± 0.2 dB to 20MHz
	Differential Phase	<0.1° in NTSC, <0.3° in PAL
	Differential Gain	<0.1% in NTSC, <0.1% in PAL
	RMS Noise (unweighted)	68dB
Performance (all outputs loaded)	Gain Range	± 3 dB
	Gain Stability	<0.2% per 10°C
	Delay	7ns (9° @ 3.58MHz) NTSC 7ns (11° @ 4.43MHz) PAL
	Chrominance-to-Luminance Delay	<2.0ns
	Line Rate Window Tilt	<0.1%
	Field Rate Window Tile	<0.1%
	Bandwidth	-3dB @ 56MHz Typical
Power	Total Power Draw	<1.5W

*Looping only available with the R1L-8705 or R2L-8705 Rear Modules.

Specifications are subject to change without notice

Service Information

In This Chapter

This chapter contains the following sections:

- Troubleshooting Checklist
- Power LED Conditions
- Bootload Button
- Warranty and Repair Policy

Troubleshooting Checklist

Routine maintenance to this openGear product is not required. In the event of problems with your UDA-8705A, the following basic troubleshooting checklist may help identify the source of the problem. If the card still does not appear to be working properly after checking all possible causes, please contact your openGear products distributor, or the Technical Support department at the numbers listed under the “**Contact Us**” section at the end of this manual.

1. **Visual Review** — Performing a quick visual check may reveal many problems, such as connectors not properly seated or loose cables. Check the card, the frame, and any associated peripheral equipment for signs of trouble.
2. **Power Check** — Check the power indicator LED on the distribution frame front panel for the presence of power. If the power LED is not illuminated, verify that the power cable is connected to a power source and that power is available at the power main. Confirm that the power supplies are fully seated in their slots. If the power LED is still not illuminated, replace the power supply with one that is verified to work.
3. **Reset the Card in the Frame** — Eject the card and re-insert it in the frame.
4. **Check Control Settings** — Refer to the Installation and Operation sections of the manual and verify all user-adjustable component settings.
5. **Input Signal Status** — Verify that source equipment is operating correctly and that a valid signal is being supplied.
6. **Output Signal Path** — Verify that destination equipment is operating correctly and receiving a valid signal.
7. **Card Exchange** — Exchanging a suspect card with a card that is known to be working correctly is an efficient method for localizing problems to individual cards.

Power LED Conditions

The top front edge of the module has a Power LED which indicates card status. The Power LED displays the following conditions:

- **Off** — no power to the card.
- **Amber** — the card is running internal diagnostics while powering up.
- **Green** — normal operation.
- **Flashing Green** — the card is waiting for a software upgrade.
- **Red** — solid or flashing means the card is not operational. Reseat card in frame, check the Rear Module type and connections, or call Sierra Video Technical Support.

Bootload Button

In the unlikely event of a complete card failure, you may be instructed by a Sierra Video Technical Support specialist to perform a complete software reload on the UDA-8705A. Contact Sierra Video Technical Support for the latest software load for your card.

Use the following procedure to perform a complete software reload on the card:

1. Eject the card.
2. Press and hold the **Bootload** button, while re-inserting the card into the frame.
3. Release the button.

The **PWR LED** will flash GREEN while the card is waiting for a new software load.

If a new software load is not sent to the card within 60 seconds, the card will attempt to restart with its last operational software load.

This completes the procedure for performing a complete software reload on the card.

Sierra openGear Warranty

A. General

Buyer assumes all responsibility for ascertaining the suitability of Sierra Video Systems (hereinafter "SVS") products for Buyer's intended use. No product sold by SVS is designed or manufactured for use in any manner or under any conditions other than those described in SVS's instruction manuals and other printed material for each particular product. If any product is used or applied in a manner or under conditions not specifically authorized by such written materials or if any product is used by unqualified or improperly trained personnel, Buyer agrees that SVS shall have no liability of any kind arising from such use, and Buyer agrees to indemnify and hold SVS harmless from any claims of third parties arising from such use, and Buyer shall provide SVS with counsel of SVS's choice to defend against such claims.

B. Limited Warranty

1. This warranty applies only to the original purchaser and is non-transferable. This warranty begins on the date of purchase and will be in effect for five (5) years for new equipment or and for three (3) years for "Factory Refurbished" equipment. Buyer must obtain a Return Material Authorization ("RMA") number from SVS prior to returning a product for repair. If, in SVS' sole discretion, the product is found to be defective during the term of this warranty, SVS will at its option: (a) provide free replacement parts, and/or (b) repair the unit at an SVS facility. During the warranty period, SVS will make every reasonable effort to support critical emergencies by supplying no-cost loan equipment while the defective unit is being repaired. SVS will provide replacement parts and/or factory service at no charge. Buyer bears the

cost of shipping products returned to SVS under this warranty. SVS will bear the cost of shipping repaired products or replacement parts to the Buyer.

This limited warranty shall not apply to any of SVS's goods which have been altered or which shall have been subjected to misuse, mishandling, improper storage or negligence. The aforementioned provisions do not extend the original warranty period of any goods which have been replaced by SVS. This limited warranty shall not apply to any goods not of SVS's manufacture, Buyer to be entitled only to the warranty set forth in the original manufacturer's limited warranty.

THIS LIMITED WARRANTY IS EXPRESSED IN LIEU OF ALL OTHER WARRANTIES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING WITHOUT LIMITATION THE IMPLIED WARRANTIES OF MERCHANTABILITY AND OF FITNESS FOR A PARTICULAR PURPOSE, AND ALL OTHER OBLIGATIONS OR LIABILITIES ON SVS'S PART.

SVS neither assumes nor authorizes any other person to assume for SVS any other liabilities in connection with the sale of products of its own manufacture.

2. SVS's liability hereunder on any claim of any kind, except as set forth herein for any loss, injury to person or property or damage, shall in no case exceed the price allocable to the goods which give rise to such claim.

3. In no event shall SVS be liable for any damages or injuries to person or property if any goods do not meet the above limited warranty, including, without limitation, incidental expenses or consequential or special damages, except as set forth in such limited warranty. The foregoing states the exclusive remedy of Buyer and the exclusive liability of SVS for any breach of the foregoing limited warranty.

C. Cancellation

Except as provided in paragraph B immediately above, all sales are final, and Buyer may cancel this order or return products only upon written consent of SVS.

D. General

A. In the event of a breach of any of the terms hereof, the non-breaching party shall be entitled to recover all of its costs, fees, and expenses, including, without limitation, reasonable attorney's fees, from the breach party incurred as a result of such breach, regardless of whether or not a suit is actually filed to enforce the terms hereof.

B. The provision hereof shall be governed by the laws of the State of California (excluding its choice of law provisions).

C. The headings are for convenience only and do not limit or amplify the terms and provisions hereof.

D. In case any one or more of the provisions set forth herein shall be held to be invalid, illegal, or unenforceable in any respect, the validity, legality, and enforceability of the remaining provisions contained herein shall not in any way be affected or impaired thereby.

E. No waiver, alteration, or modification of any of the provisions hereof shall be binding unless in writing and signed by an authorized Officer of SVS.

NOTE:

All products returned to SVS for service must have prior approval. Return authorization requests may be obtained from your SVS dealer.

In Case of Problems

Should any problem arise with your UDA-8705A, please contact the Sierra Video Technical Support Department. (Contact information is supplied at the end of this publication.)

A Return Material Authorization number (RMA) will be issued to you, as well as specific shipping instructions, should you wish our factory to repair your UDA-8705A. If required, a temporary replacement module will be made available at a nominal charge. Any shipping costs incurred will be the responsibility of you, the customer. All products shipped to you from Sierra Video will be shipped collect.

The Sierra Video Technical Support Department will continue to provide advice on any product manufactured by Sierra Video, beyond the warranty period without charge, for the life of the equipment.

Ordering Information

UDA-8705A and Related Products

Your **UDA-8705A Analog Utility Distribution Amplifier** is a part of the openGear family of products. Sierra Video offers a full line of openGear terminal equipment including distribution, conversion, monitoring, synchronizers, encoders, decoders, keyers, switchers, as well as analog audio and video products.

Standard Equipment

- **UDA-8705A** Analog Utility Distribution Amplifier
- **UDA-8705A-OM** Analog Utility Distribution Amplifier User Manual

Optional Equipment

- **UDA-8705A-OM** Analog Utility Distribution Amplifier User Manual (additional)
- **R1-8705** openGear Rear Module for the DFR-8310 series frames
- **R1L-8705** openGear Rear Module with Looping for the DFR-8310 series frames
- **DFR-8310-N** Digital Products Frame and Power Supply with cooling fans, and MFC-8310-N card (2RU, holds up to 10 cards)
- **DFR-8320-CNS** Digital Products Frame, Power Supply, Cooling Fans, MFC-8310-N, COMM I/O Module and SNMP-8310 (2RU, holds up to 20 cards)
- **R2-8705** openGear Full Rear Module for the DFR-8320 series frames (10 per frame)
- **R2L-8705** openGear Full Rear Module with Looping for the DFR-8320 series frames (10 per frame)
- **R2S-8705** openGear Split Rear Module for the DFR-8320 series frames (10 per frame)

Please contact your openGear sales representative for a complete list of the available options.

Contact Us

Contact our friendly and professional support representatives for the following:

- Name and address of your local dealer
- Product information and pricing
- Technical support
- Upcoming trade show information

PHONE	General Business Office and Technical Support	530-478-1000
	After-hours Emergency	530-888-3195
	Fax	530-478-1105
E-MAIL	General Information	Service @sierravideo.com
	Technical Support	techsupport@sierravideo.com
POSTAL SERVICE	Sierra Video	104B New Mohawk Rd Nevada City, CA 95959
	Sierra Video Incorporated	PO Box 2462 Grass Valley, CA 95945

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Please visit us at our website for:

- Company information
- Related products and full product lines
- On-line catalog
- Trade show information
- News
- Testimonials

